SCIENCE YEAR 8 - UNIT 1 - LESSON 19

Evidence-Based Explanations in Living Systems

Use this worksheet after reading the lesson to practise the key ideas and prove you can meet the success criteria.

Name _____

Date _____

Class _____

1. Key Ideas

Scientific explanations are strongest when they are built from evidence rather than vague description. This lesson shows how to interpret tables, diagrams and case studies, then write structured explanations using `structure -> role -> function -> effect`.

- evidence can come from tables, diagrams or case studies
- scientific communication is stronger when each claim is linked to evidence

2. Success Criteria

By the end, you should be able to:

- evidence can come from tables, diagrams or case studies
- strong explanations use structure, role, function and effect
- interpreting evidence is more than copying it

3. Key Terms

Evidence
Information from data, diagrams, observations or case studies that supports an explanation.

Interpret
Work out what evidence means rather than just copying it.

Case study
A specific real or realistic example used to analyse a broader scientific idea.

Structure
A part or arrangement within a living system.

Role
The job a structure or system performs.

Effect
The result produced in the living system.

4. Activity: Build the Lesson Map

Use the lesson to complete the table. Keep answers brief but specific.

Prompt	Your answer
Main concept	
Important example	
Common mistake to avoid	
How this links to the next lesson	

5. Short Answer Questions

1. Explain this lesson goal in your own words: "evidence can come from tables, diagrams or case studies". Use one specific example from the lesson.

CORE

2. Apply this idea to a new example: "strong explanations use structure, role, function and effect". Show your reasoning clearly.

CORE

3. Analyse why this idea matters for understanding Evidence-Based Explanations in Living Systems: "interpreting evidence is more than copying it".

REASONING

6. Extend: Apply the Idea

A student says, "I understand Evidence-Based Explanations in Living Systems because I memorised the definition."

Explain why memorising a definition is not enough. Use an example from the lesson to show deeper understanding.

7. Multiple Choice

1. What is the best first step when answering a question about Evidence-Based Explanations in Living Systems?

☐ A. Identify the key concept being tested

☐ B. Write every fact from memory

☐ C. Ignore the command word

☐ D. Skip examples and evidence

2. Which answer would show stronger understanding of Evidence-Based Explanations in Living Systems?

☐ A. An answer with accurate terms and reasoning

☐ B. A copied definition only

☐ C. A single-word response

☐ D. An answer with no example

3. What should you do if a question asks you to explain?

☐ A. Link the idea to a reason or cause

☐ B. List unrelated facts

☐ C. Only draw a diagram

☐ D. Write the shortest possible answer

8. Success Criteria Proof

Finish with evidence that you can do each success criterion.

SUCCESS CRITERION 1

Prove that you can: evidence can come from tables, diagrams or case studies

SUCCESS CRITERION 2

Prove that you can: strong explanations use structure, role, function and effect

SUCCESS CRITERION 3

Prove that you can: interpreting evidence is more than copying it

One thing I still need help with: